

Lexington Energy Study 1983

EXECUTIVE SUMMARY

- In 1982 Lexington used 1.3 trillion Btus of energy—including energy for transportation, residential and business uses. This total is equivalent to the energy contained in 10.4 million gallons of gasoline, about 1477 gallons for each of the 7,040 residents in the community.
- The 1982 total retail energy cost in Lexington was estimated to be \$11.1 million, about \$1,577 per resident.
- By 1990 rising energy prices, coupled with a modest increase in energy consumption, will increase the Lexington energy bill to almost \$20 million per year if little or no conservation programs are established in the community. This higher cost may decrease local productivity by as much as \$13 million in the Lexington area.



STATE OF NEBRASKA

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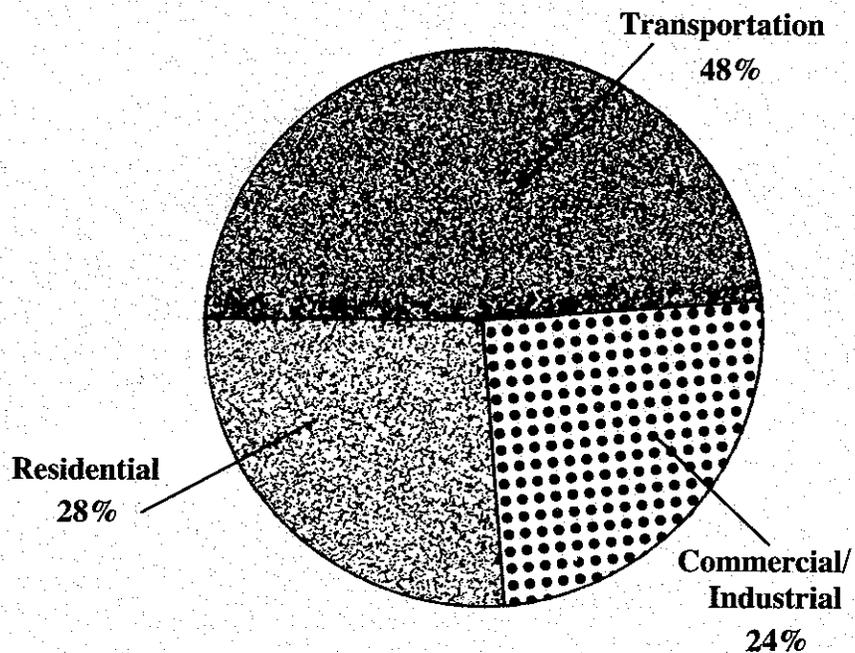
OVERALL ENERGY USE

When measured in common units, the total yearly energy consumption was estimated to be 1.3 trillion Btus in 1982. This is equivalent to the energy contained in 10.4 million gallons of gasoline. The total includes the energy needed for such things as transportation uses, residential heating and cooling, and business or industrial consumption. In terms of actual measures, the estimated 1982 retail sales to Lexington homes and businesses included:

- 440,000 MCF (thousand cubic feet) of natural gas
- 4,930,000 gallons of transportation fuels
- 58,033,000 kilowatt-hours of electricity
- 470,000 gallons equivalent of miscellaneous fuels

CONSUMPTION BY SECTOR

In terms of how all of this energy is used, 48% is needed for the various cars and trucks used in the Lexington area, 28% is consumed by the 2873 homes in Lexington, and the remainder, 24%, goes for powering the business and industrial sector.



LEXINGTON'S ENERGY BILL

The cost for Lexington residents and businesses for all of the energy purchased in 1982 was approximately \$11.1 million.

HOUSEHOLD ENERGY COSTS

As illustrated below, energy costs can take a big bite out of any household budget. In 1982 it is estimated that a typical Lexington household may have spent \$2,064 or more for all of its energy needs:

●● 6500 kilowatt-hours of electricity at 7¢/kwh	= \$ 455
●● 120 thousand cubic feet of natural gas at \$3.75/MCF	= \$ 450
●● 950 gallons of gasoline at \$1.22/gallon	= \$1159
ANNUAL TOTAL	= \$2064

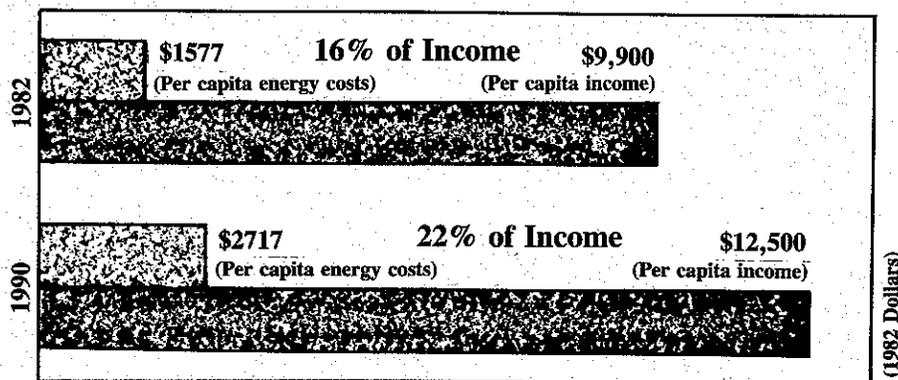
Even with modest conservation steps that are likely to take place in most households, it is projected that by 1990 higher energy prices will force families and other households to pay as much as \$3,200 for basically the same energy needs.

PER CAPITA CONSUMPTION

Per capita energy sales (including both business and residential uses) to the 7040 people living in Lexington amounted to about 185 million Btus, equivalent to the energy contained in 1,477 gallons of gasoline. This is approximately 94% of the statewide average.

Although Lexington appears to be slightly less energy-intensive than the state as a whole, energy costs continue to be a major expense to the local economy, consuming approximately 16% of the total personal income in the community.

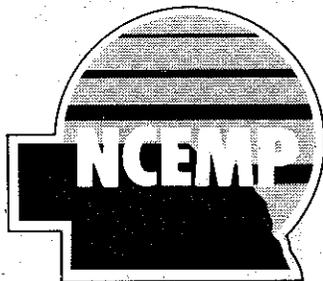
Based on an estimated per capita income of \$9900 in 1982, almost \$1580 went to pay the residential and commercial energy bills.



ECONOMIC IMPACTS

Without any major shifts in the way energy is used in Lexington, total energy use is expected to increase 13% by 1990. Prices, however, will jump 59% in that time. Combining these effects means that by 1990 the total Lexington energy bill will go from \$11.1 million to \$19.9 million.

Not only will this take a bigger bite out of the personal income in 1990, as shown above, but total economic activity will be \$13 million less than if the energy bill stayed at the 1982 level. This is because as more and more of the total dollars are paid for energy, other sectors of the economy—generally the most productive ones such as manufacturing and agriculture—will have fewer dollars available to produce the necessary consumer goods. This, in turn, lowers the area's economic productivity.



**Nebraska Community
Energy Management Program**